

REMARKS

As a preliminary matter, the Applicant affirms its provisional election of prosecuting the invention of Group I, claims 1-8 and 13-21, as indicated by Stephen W. Barnes in a phone conversation with the Examiner on March 10, 2003.

Substantively, claims 2 and 14 stand rejected under 35 U.S.C. §112, second paragraph, as indefinite since the Examiner believes the term “co-fiberized composite material” renders the claims “vague and indefinite.” *Paragraph 7, Office Action.*

Responsive thereto, the Applicant hereby amends claims 2 and 14 to include the limitation that the mineral and organic fibers “are entangled as a co-fiberized composite material.” The Applicant believes such amendment obviates the Examiner’s indefinite rejection. The Examiner can find support for this amendment in the Applicant’s specification at p. 6, l. 26 - p. 7, l. 10.

Claims 1-8 and 13-20 stand rejected under 35 U.S.C. §102(b) as anticipated by Tanaka (5,285,089) while claim 21 stands rejected under 35 U.S.C. §103(a) as obvious in view of Tanaka. Specifically, the Examiner concludes Tanaka expressly teaches the Applicant’s claimed co-fiberized composite material having both mineral and organic fibers arranged with the same weight, thickness and density ranges or that such would be an obvious modification in view thereof.

In response, the Applicant amends claims 1, 5, 13, and 17 and adds new claim 22. In particular, claims 1 and 13 now include the limitation that the composite material (claim 1) or the sheath (claim 13) have a “semi-compacted thickness less than an initial prepared thickness.” The Applicant has made consequential changes to the antecedent basis in claims 5 and 17 as a result of amending claims 1 and 13. Finally, claim 22 recites the same trim panel/sheath combination of original claim 13 with the inclusion of an “HICd value of less than about 1000.”

Regarding Tanaka, the Applicant reads this reference as teaching a composite laminate 4 with an attendant surface material 5 attached thereto. In turn, the laminate includes a layer of heat fusible film 3 and a substrate 2 having glass fibers 2a, binders 2b and expandable microbeads 2c. As taught in Example 1, for instance, Tanaka forms its laminate by pressing and adhering, at roller 251, the heat fusible film onto a surface of a glass fiber sheet 20 having undergone dunking in a resin emulsion tank 21 and, thereafter, heating in a hot air drying unit 23. The laminate 4 then passes into a heating furnace 27 whereby thermally activated expandable microbeads thereof (applied to the glass sheet in the resin emulsion tank) cause the substrate 2 to increase in thickness. In this manner,:

the mutual binding among the fibers is loosened or unbound, giving the fiber flowability. Furthermore, because the substrate increases in volume by expansion, the density of the substrate is lowered, resulting in further flowability of the fiber. *Col. 5, ll. 38-43.*

In other words, Tanaka teaches a substrate increased in thickness from its initial prepared thickness that exhibits more stiffness in comparison to an un-expanded sheet having an equivalent weight, as contended at *col. 6, ll. 4-9*. In addition to thickness expansion, the microbeads also allow the substrate to “expand partially in the direction of the plane slightly.” *Col. 6, ll. 26-27*. Table 1 of the patent compares various properties between such expanded substrates and those of equivalent weight having no expansion.

In contrast, the Applicant’s composite material of mineral and organic fibers has an initial prepared thickness of “about 2 inches to about 36 inches and preferably about 12 inches” when embodied as a lofted batt 16 post co-fiberizing process. *Applicant’s Specification, p. 7, ll. 11-14*. Thereafter, the lofted batt 16 becomes heated, for pliability reasons, and “compacted into a thinner, but still somewhat lofted (semi-compacted) substrate 18.” *Id. at p. 8, lines 1-2*. In this semi-compacted state, the composite material has a thickness T1 “of between 0.5 inch and about

2 inches.” *Id. at ll. 5-6*. When embodied as a sheath during use, a maximum thickness T_s exists in a range “between about 5 mm [0.19 inch] and 50 mm [1.9 inch].” *Id. at p. 9, l. 1*. Accordingly, the Applicant’s composite material invention has an initial prepared thickness greater than its later semi-compacted thickness. Consequently, the Applicant’s composite material neither expands in thickness or volume as taught by Tanaka and its claim recitation “having a semi-compacted thickness less than an initial prepared thickness” expresses a contrarian limitation thereto. Thus, the Applicant respectfully submits that, as a matter of law, Tanaka cannot now render claims 1-8 and 13-20 anticipated or obvious.

Regarding new claim 22, the Applicant recites a trim panel/sheath combination “having an HICd value of less than about 1000.” This value, as taught in Applicant’s specification at *p. 9, ll. 16-25*, positively identifies that the instant invention has substantial energy-absorbing characteristics in accordance with Ford Motor Vehicle Safety Standard 201U unlike materials heretofore known. Also, the Applicant nowhere finds any teaching, mentioning or suggesting of such HICd value in Tanaka and submits Tanaka cannot render this claim anticipated. Moreover, since Tanaka teaches an expanded substrate having superior stiffness properties over non-expanded substrates having equivalent weight, and since the instant invention contains a semi-compacted thickness, the Applicant respectfully submits Tanaka has different inherent properties that could also not render the claim obvious.

As such, the Applicant respectfully submits that all pending claims, 1-8 and 13-22, distinguish themselves over the prior art.

Upon careful review and consideration of the foregoing remarks and amendments, it is believed that the Examiner will agree that all rejections have been satisfactorily addressed, and that all the claims of the present application are in condition for allowance. Accordingly, the early issuance of a formal Notice of Allowance is earnestly solicited. If any matters require further attention, however, the Examiner is respectfully requested to contact the Applicants’

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attorney at the telephone number of record in order to expedite the prosecution of this patent application.

Respectfully Submitted,



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Date

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